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ABSTRACT

In April 1991, the Youth Risk Behavior Survey was administered to a sample of 1,412 high school students in Colorado public schools to collect information about priority health-risk behaviors among adolescents. Questionnaires were received from 1,170 students, a response rate of 83%. Classes in Colorado's 280 public schools were also selected to participate in the survey if they included 9th-12th graders; 68 classes out of 105 responded for a 65% response rate. The findings, based on unweighted data, revealed that over one-half of the students surveyed were sexually active; 60% of the males and 48% of the females reported using condoms during last intercourse. From 23% to 39% of sexually active students used alcohol or drugs before their last intercourse. Ten percent of high school seniors had been pregnant or had caused a pregnancy. Over 25% of the students rarely or never used seat belts. Nearly one-half of the male students indicated that they had carried a weapon within the past 30 days. Nearly one-third of respondents had seriously considered suicide; 19% had made a suicide plan, and 8% had attempted suicide. Females were at higher risk than males in all three categories. Eighty-five percent of respondents reported having used alcohol, with one-half indicating use within the past 30 days. Seventy percent indicated they had smoked cigarettes, with over one-quarter having smoked within the past 30 days. One-third reported having tried marijuana; 19% indicated they had tried other illicit drugs. These results suggest that Colorado high school students continue to engage in health-compromising behaviors at alarming rates. (NB)

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COLORADO

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Youth Risk Behavior Survey

1991

Colorado Department of Education
HIV Education Project

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Youth Risk Behavior Survey 1991

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SEPTEMBER 1992

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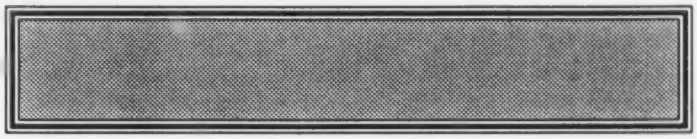

Mission of the Colorado State Board of Education

The mission of the State Board of Education is promoting attainment of the state goals for Colorado public education. Working with all Colorado citizens, the State Board of Education is dedicated to:

- Encouraging all students to attain their highest social and academic potential;
- Promoting and enabling variability in methods of reaching the goals;
- Establishing rules that will enable and promote effective restructuring of schools;
- Closing the gaps between policy, research, and practice;
- Improving the quality of education for teachers, administrators, and librarians; and
- Enhancing lifelong learning through access to information, quality libraries, and adult literacy services.

1991 Youth Risk Behavior Survey
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INTRODUCTION

In April 1991 the Colorado Department of Education and the Research Group of the Department of Family Medicine, University of Colorado Health Sciences Center, in cooperation with the Centers for Disease Control, conducted the Youth Risk Behavior Survey (YRBS) in Colorado public schools. The purpose of this survey was to collect information about priority health-risk behaviors among adolescents. The behavior categories included: 1) intentional and unintentional injuries; 2) tobacco, alcohol, and other drug use; 3) sexual behaviors that may result in sexually transmitted diseases, including HIV infection, and unintended pregnancies; and, 4) dietary and physical activity behaviors.

The 280 public schools in Colorado containing grades 9, 10, 11, or 12 were included in the sampling frame. Schools were stratified by the grades taught in the school and the size of the population where the school was located. Due to this stratification, schools could appear in more than one stratum and be selected more than once. All class periods were included in the sampling frame. Classes containing only students in the selected grade were randomly selected to participate in the survey.

A total of 105 classes were selected to participate in the survey. Data were received from 68 classes, yielding a class response rate of 65%. Questionnaires were received from 1,170 of the 1,412 sampled students, yielding a student response rate of 83%. The overall response rate for the 1991 Colorado Youth Risk Behavior Survey was 54%.

These results are unweighted and may reflect non-response and selection bias. **The unweighted data should not be generalized to other students in Colorado; however, they provide an important description of the health risk-behaviors of survey participants.**

Figures 1 through 4 describe the survey participants demographically. Males composed 52% of the sample; 48% were female. The majority of students were 16 or 17 years old (49% of all males; 48% of all females). The sample was composed primarily of white students (79%).

FIGURE 1
Gender

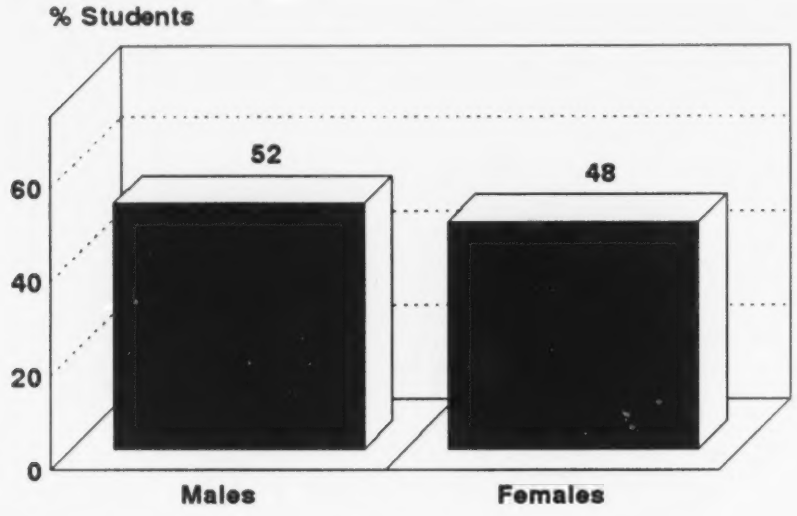


FIGURE 2
Gender by Age

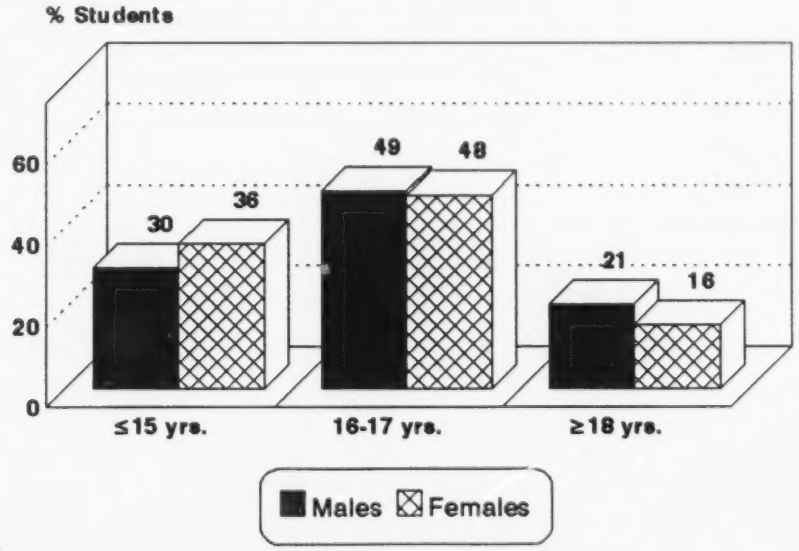


FIGURE 3
Race/Ethnicity

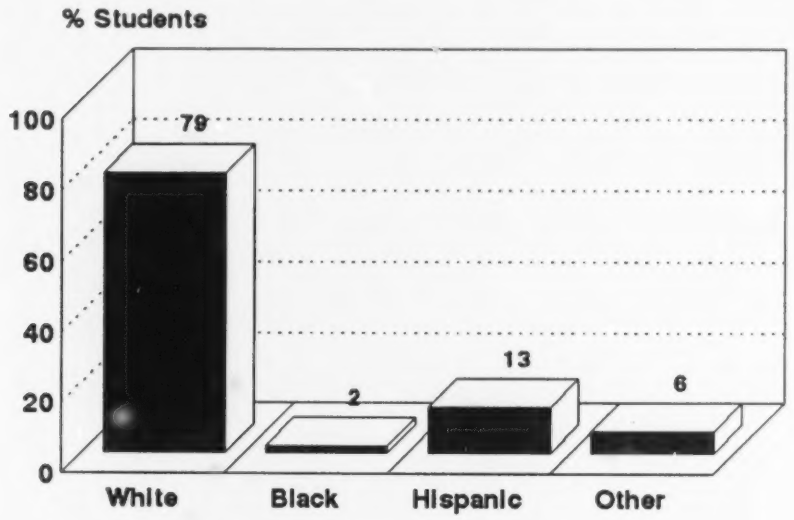
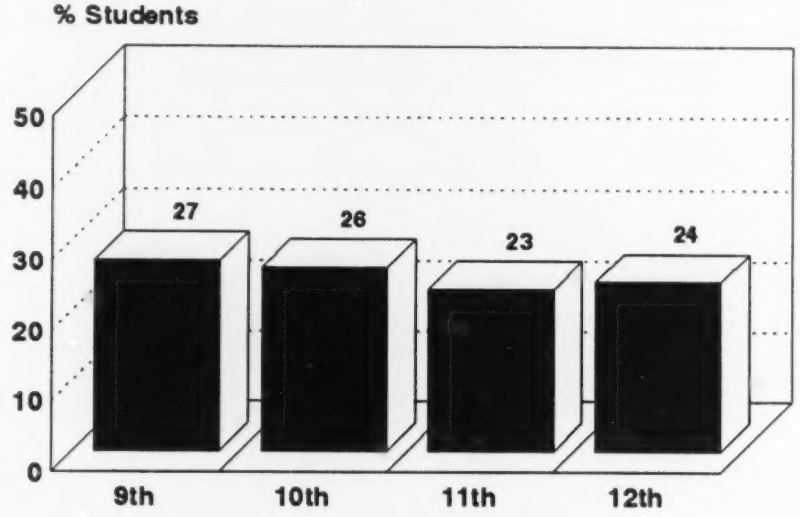


FIGURE 4
Grade Level



INTENTIONAL AND UNINTENTIONAL INJURIES

Intentional and unintentional injuries are a major cause of morbidity and mortality among adolescents. Motor vehicle crashes, homicide and suicide are the leading causes of death among adolescents. Alcohol-related car crashes rank as the leading cause of death among U.S. youth aged 15-24.

The YRBS asked students whether they engaged in behaviors that could place them at risk for intentional and unintentional injuries. Those behaviors included drinking and driving, seat belt use, fighting, weapon carrying, and attempted suicide.

Nearly 43% of all students indicated that at least once in the past 30 days they had been a passenger in a car where the driver had been drinking. Twenty-eight percent of all students indicated they had driven a car at least once after drinking in the past 30 days. The percentage of students responding positively to these questions increased with grade level -- i.e., 52% of 12th graders had been a passenger in a car where the driver had been drinking compared to 36% of 9th graders. Figure 5 illustrates drinking and driving by grade level.

Although seat belt use is believed to reduce fatalities and serious injuries by up to 50%, a large proportion of adolescents fail to "buckle up." Over 27% of students in the sample indicated they never or rarely use a seat belt while being a passenger in a car. A higher percentage of male students (35%) reported never or rarely using seat belts compared to female students (24%). Figure 6 illustrates seat belt use by gender.

Students also were asked about weapon carrying and fighting during the 30 days preceding the survey. Five times as many males (48%) as females (10%) indicated they had carried a weapon (gun, knife, or club) in the past 30 days. A similar percentage of males (48%) and nearly 36% of females indicated they had been involved in physical fighting in the past 30 days. Overall the percentage of students involved in physical fighting in the past 30 days decreased with grade level. Figures 7 and 8 illustrate the frequency of weapon carrying and physical fighting in the past 30 days and 12 months, by gender. Figures 9 and 10 illustrate the same variables by grade level.

Students were asked if during the past year they had considered suicide, planned a suicide, attempted suicide, or been treated by a physician for injuries sustained from a suicide attempt. Twenty-eight percent of all students indicated they had seriously considered suicide during the past year, with 19% actually having made a plan for suicide. Just over 8% of students attempted suicide at least once during the past year, and 4% attempted suicide more than once. Females were twice as likely to have planned or attempted suicide. Figure 11 details the results of questions about suicide and by gender. Figure 12 examines the same variables by grade level.

FIGURE 5
Drinking and Driving
Past 30 Days

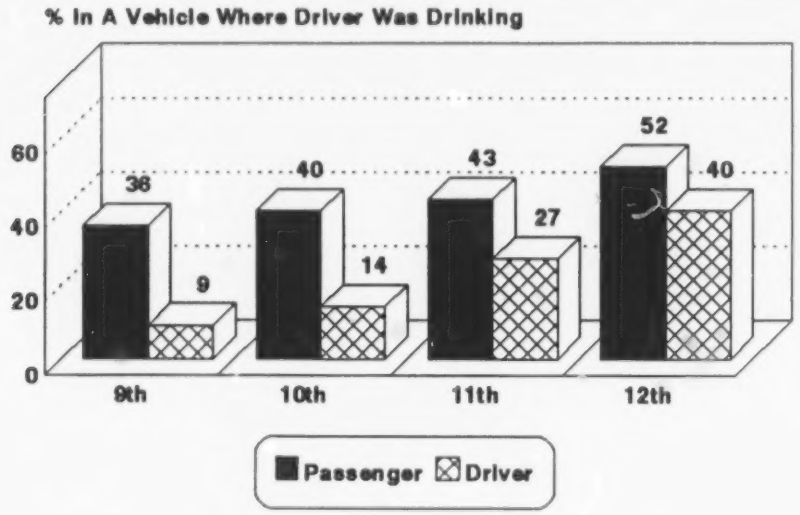


FIGURE 6
Students Who Rarely Or Never Wear A Seatbelt When A Passenger In A Car

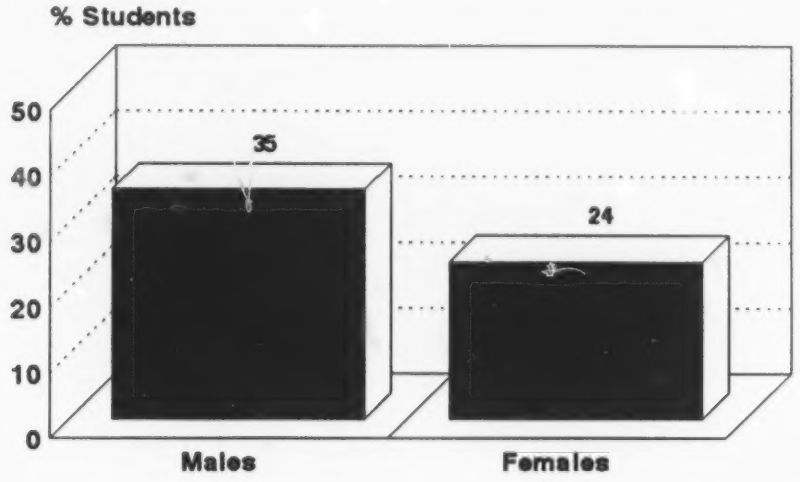


FIGURE 7
Physical Fighting by Gender

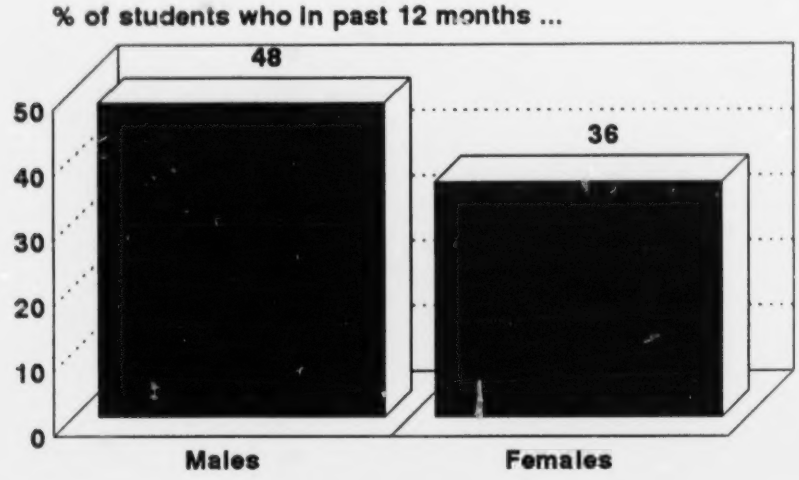


FIGURE 8
Possession of a Weapon by Gender

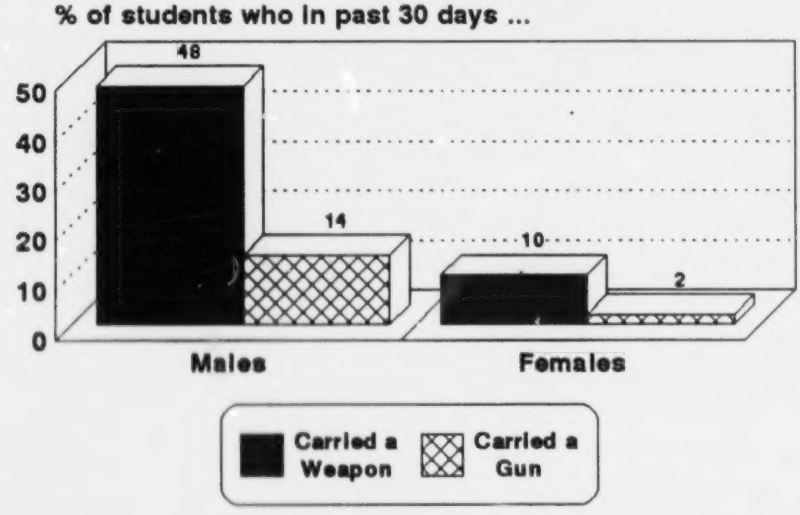


FIGURE 9
Physical Fighting by Grade Level

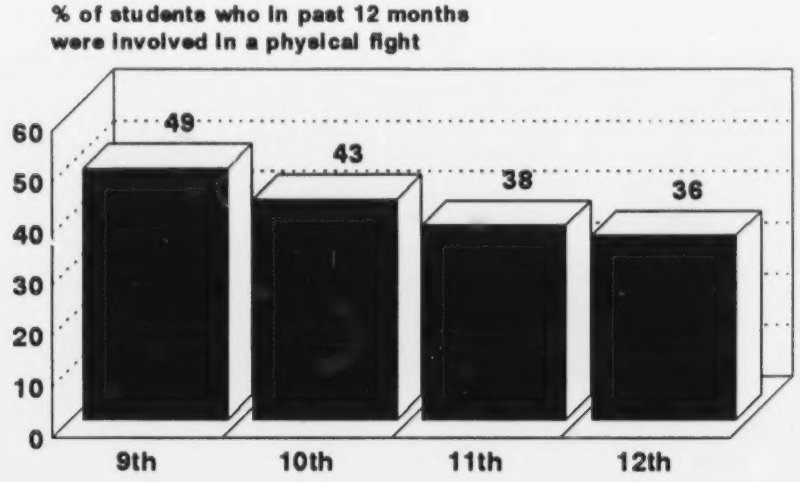


FIGURE 10
Weapon Carrying by Grade

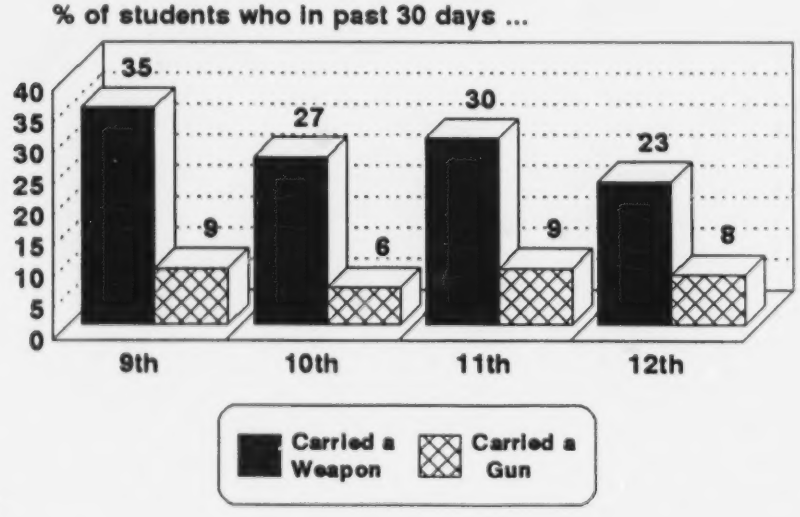


FIGURE 11
Students Who Considered or Attempted Suicide by Gender

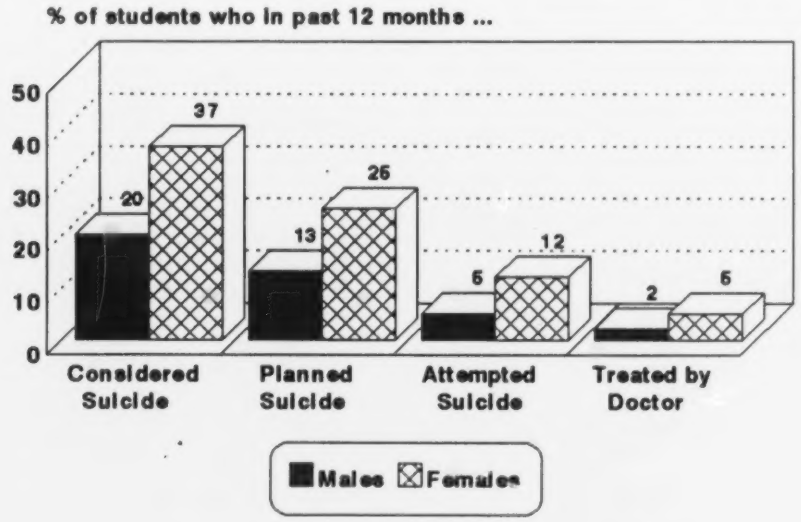
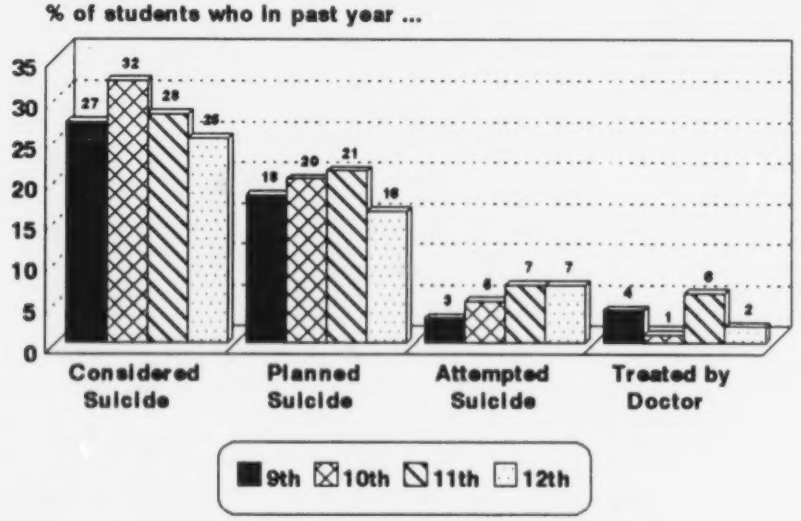


FIGURE 12
Students Who Considered or Attempted Suicide by Grade Level



ALCOHOL, TOBACCO, AND DRUG USE

Alcohol and other drugs are major contributors to disability and death among our nation's teens. Half of fatal motor vehicle accidents and homicides, and a large number of suicides, are associated with the use of alcohol and other drugs. Drug use is also associated with other injuries, unwanted pregnancy, school failure, and HIV infection.

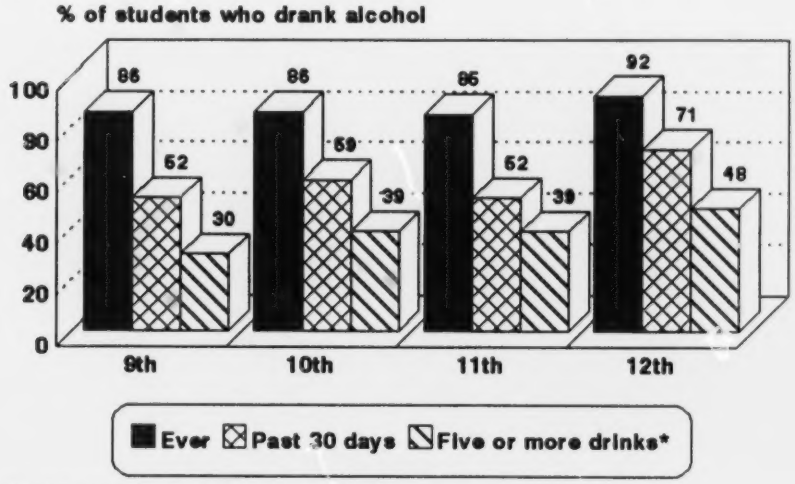
Over 85% of all surveyed students reported ever having used alcohol, and over 50% reported having used alcohol in the past 30 days. Students in the 12th grade demonstrated the highest alcohol use: 92% ever used alcohol; 71% used alcohol in the past 30 days; and 48% had five or more drinks on one occasion in the past month. Figure 13 illustrates alcohol use during lifetime and the past 30 days, by grade level. A higher percentage of males (61%) than females (56%) reported having consumed alcohol in the past 30 days and having consumed five or more drinks on one occasion during the past month (males, 47%; females, 35%). Figure 14 illustrates gender differences in alcohol consumption.

More than 70% of surveyed students indicated they had ever smoked cigarettes. The percentage of students who reported smoking cigarettes in the past 30 days increased with grade level as did the percentage of students who smoked on at least 20 days of the past 30 days. Figure 15 illustrates cigarette smoking by grade level for lifetime and over the past 30 days. Males were three times more likely to use chewing tobacco than females. Males in the 12th grade reported the highest use of chewing

tobacco (38%). Figure 16 illustrates chewing tobacco use in the past 30 days by grade level.

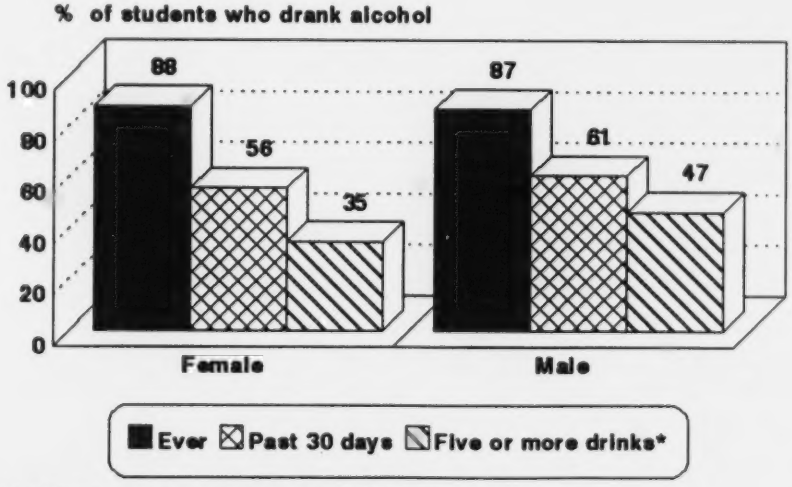
Students were asked about drug use including marijuana, cocaine, LSD/Speed/PCP, steroids, and injected drugs. Overall, the percentage of students who ever tried any type of drug increased with grade level. Almost 33% of all students surveyed indicated they had at some time used marijuana. Nineteen percent of all students indicated they had ever used LSD/Speed/PCP. Figures 17, 18, and 19 illustrate drug usage for lifetime and over the past 30 days by grade levels.

FIGURE 13
Alcohol Use by Grade Level



* five drinks on one occasion in past 30 days

FIGURE 14
Alcohol Use by Gender



* five drinks on one occasion in past 30 days

FIGURE 15
Cigarette Smoking by Grade Level

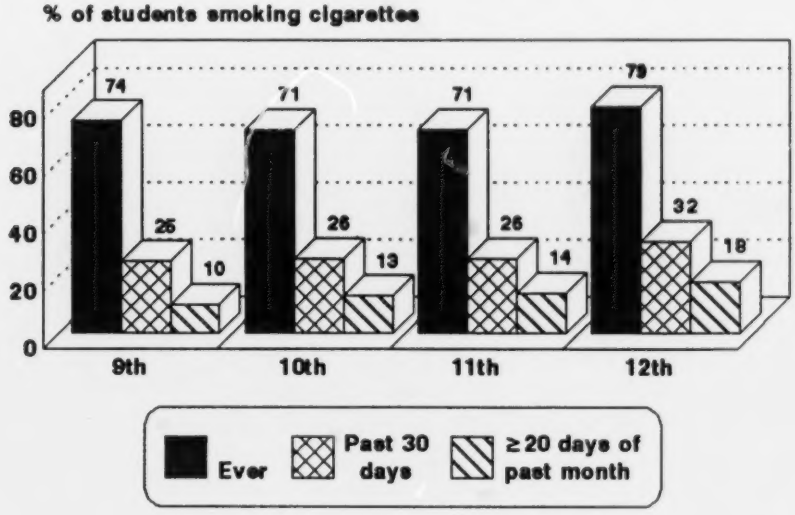


FIGURE 16
Chewing Tobacco Use by Grade Level

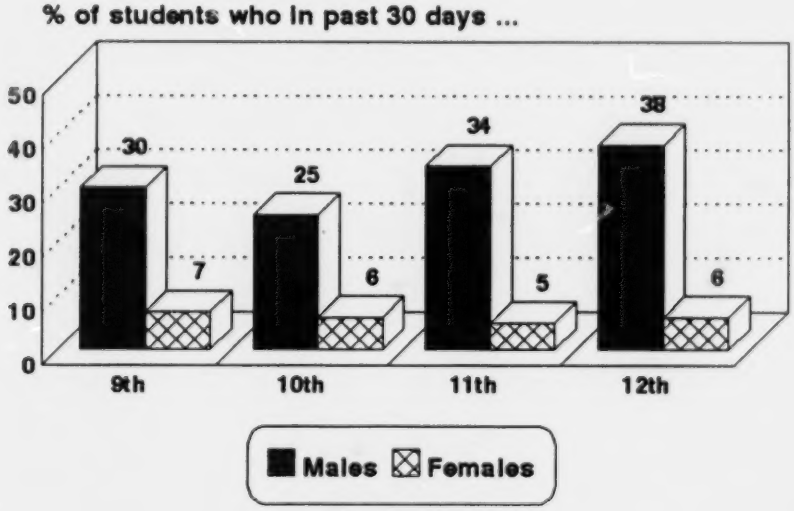


FIGURE 17
Marijuana Use by Grade Level

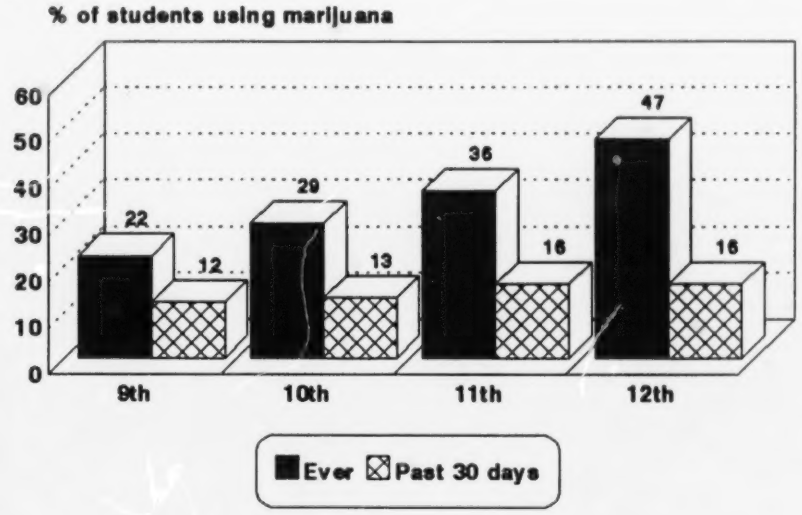


FIGURE 18
Cocaine Use by Grade Level

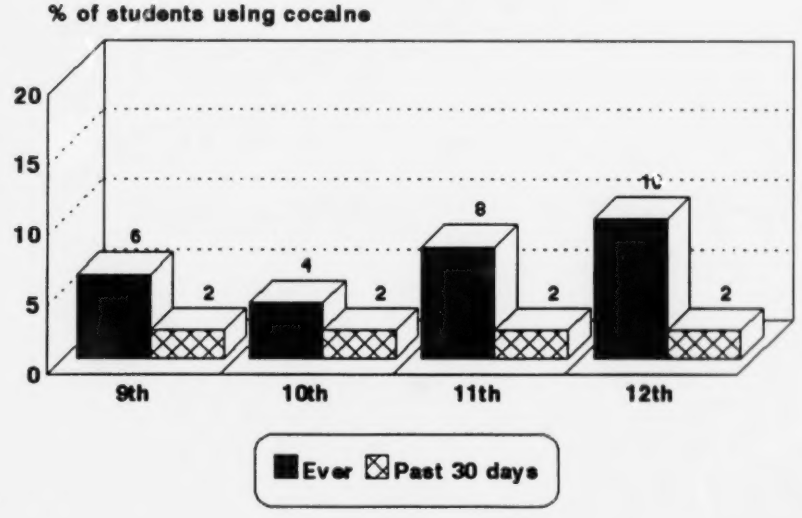
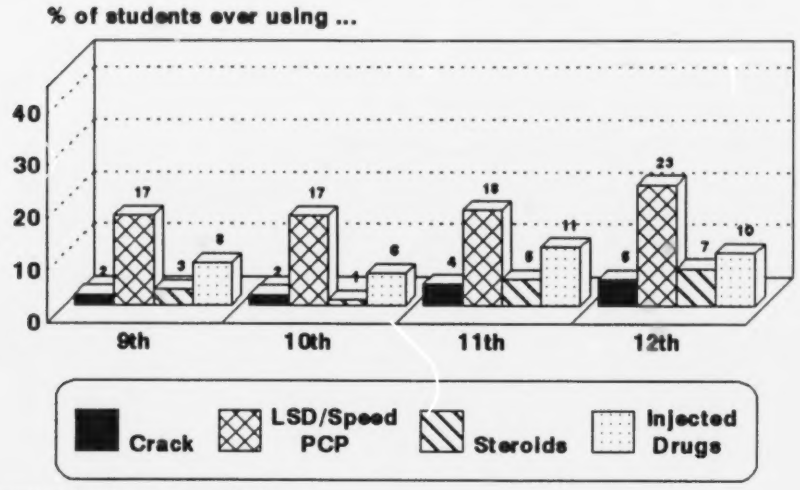


FIGURE 19
Use of Other Drugs by Grade Level*



* without a doctors prescription

SEXUAL BEHAVIORS THAT MAY RESULT IN HIV INFECTION, OTHER SEXUALLY TRANSMITTED DISEASES AND UNINTENTIONAL PREGNANCY

HIV infection, other sexually transmitted diseases and unintentional pregnancy are affecting adolescents in epidemic proportions. Birthrates for American teens have risen sharply since 1986; nationally, teens now account for nearly one-third of all unintended pregnancies. AIDS is the sixth leading cause of death among youth aged 15-24. In addition, 86% of new sexually transmitted disease cases occur among individuals aged 15-24.

Over 83% of the students surveyed indicated they had been taught about HIV/AIDS in school. However, only 64% indicated they had talked about HIV/AIDS with their parents or other adult family members. Tenth grade students (87%) most often reported having learned about HIV/AIDS in school. Figure 20 illustrates sources of HIV/AIDS information by grade level.

Fifty-seven percent of students surveyed indicated they had engaged in sexual intercourse. Males were more likely to have had sex than females at all grade levels. The percentage of students having had sexual intercourse increased with grade, from 39% of 9th grade females to 73% of 12th grade males. Over 48% indicated they were 14 or 15 years of age the first time they had sexual intercourse. Figures 21 and 22 illustrate the percentages of students who had sex by grade level and age at first sexual intercourse.

The majority of students (62%) indicated they had no sexual partners in the past 30 days. However, over 38% of students indicated they had more than one sexual partner in their lifetime, with almost 11% indicating they had more than one sexual partner in the past 30 days. Figures 23 and 24 detail student responses to questions about sexual partners during their lifetime and in the past three months.

Overall, males reported greater use of condoms than females during last sexual intercourse (males, 60%; females, 48%). This pattern was consistent at every grade level. Ninth graders reported the greatest condom use during last sexual intercourse. Figure 25 details condom usage during last intercourse by grade level and gender.

Males were more likely to have used alcohol or other drugs before last sexual intercourse. Eleventh grade males reported the highest alcohol and drug use (39%) and, interestingly, eleventh grade females reported the lowest use before last sexual intercourse (23%). Figure 26 further illustrates alcohol or other drug use in conjunction with sexual intercourse by grade and gender.

Ninth grade students reported a higher rate (7%) of sexually transmitted diseases than other grade levels. The percent of students ever causing or having a pregnancy increased with grade level and was most prevalent in the 12th grade (11%). Figure 27 illustrates both pregnancy and sexually transmitted diseases reported by grade level.

FIGURE 20
Sources of Information About HIV/AIDS by Grade Level

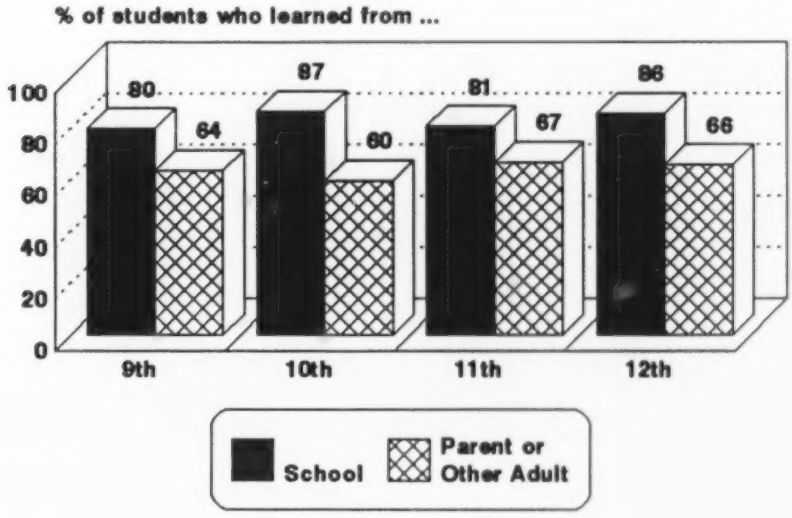


FIGURE 21
History of Sexual Activity

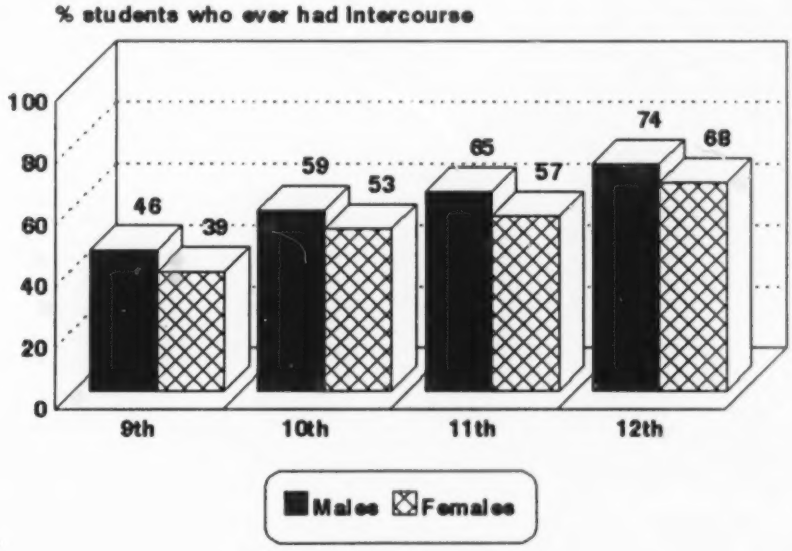


FIGURE 22
Age at First Sexual Intercourse

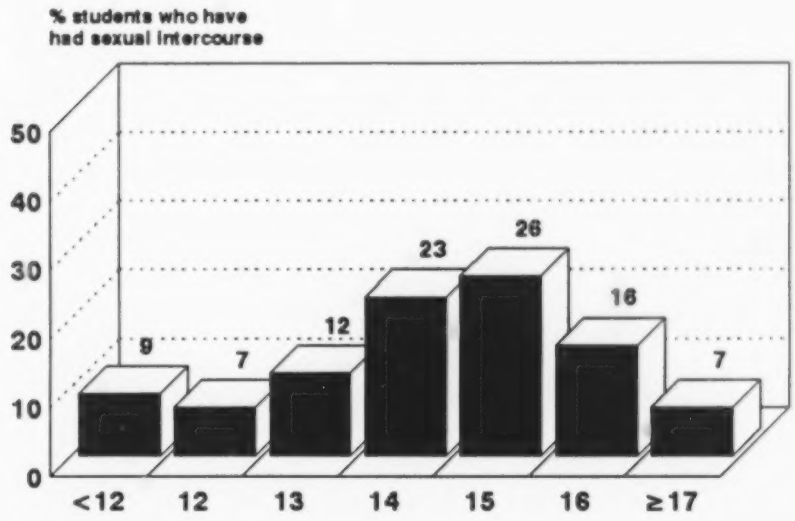


FIGURE 23
Number of Lifetime Sexual Partners

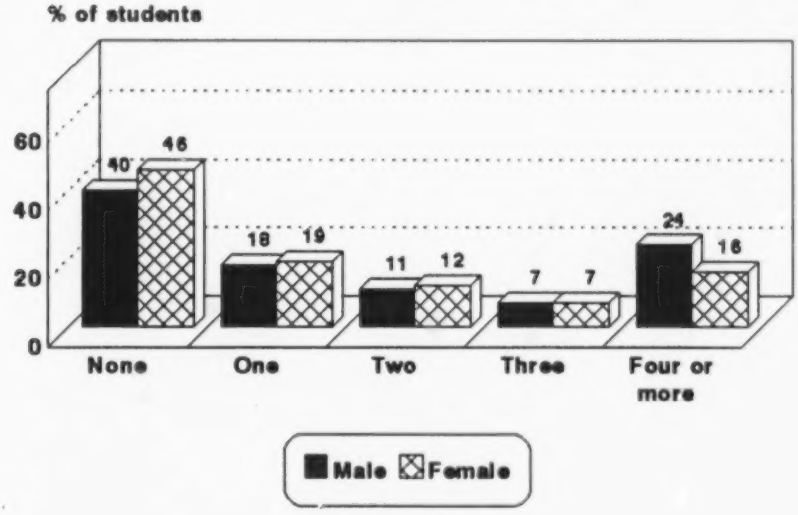


FIGURE 24
Number of Sexual Partners In Past Three Months

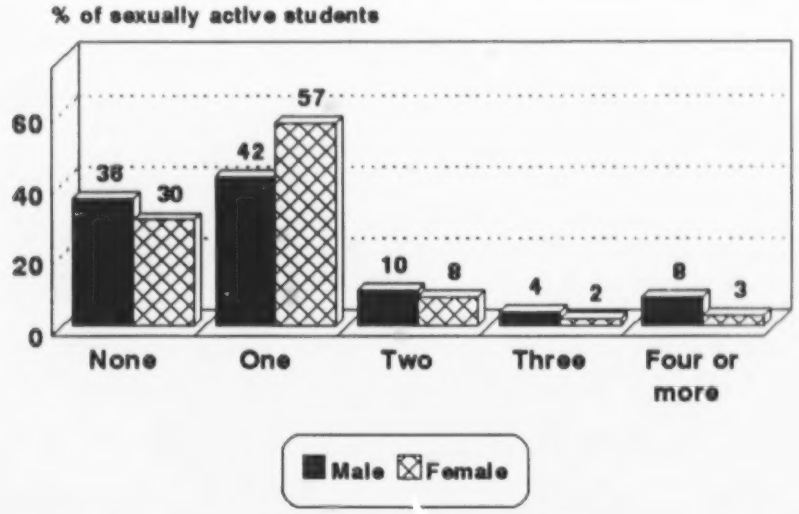
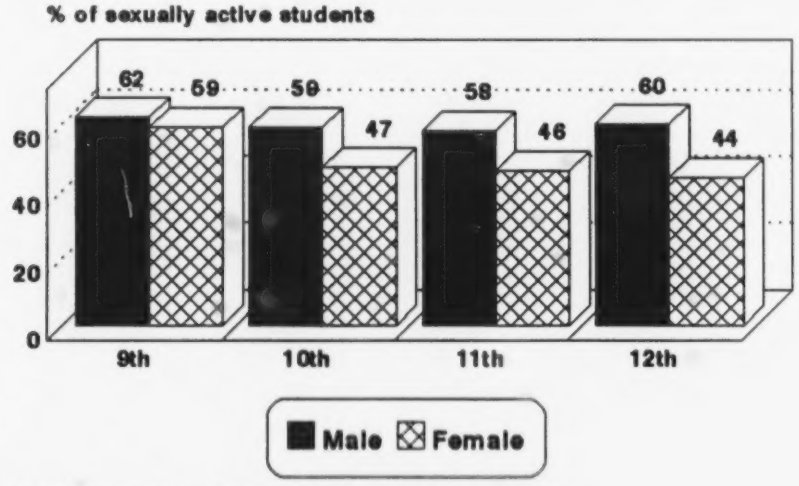
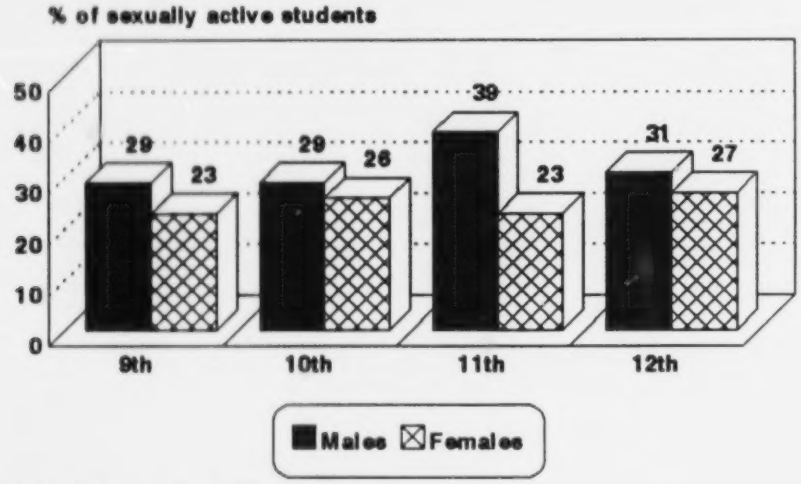


FIGURE 25
Condom Use During Last Sexual Intercourse*



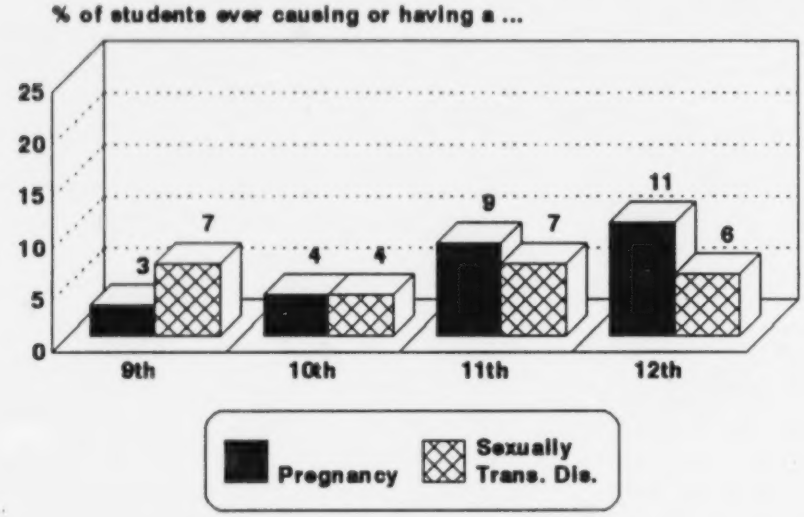
*Excludes those who had never had sexual intercourse

FIGURE 26
Use of Alcohol or Drugs During Last Sexual Intercourse*



*excludes students who never had sex

FIGURE 27
Pregnancy and Sexually Transmitted Diseases



PHYSICAL ACTIVITY AND DIETARY BEHAVIORS

Low levels of physical activity and poor dietary behaviors are threatening the health and well-being of adolescents. Changes in the American diet and decreasing exercise levels increase teenagers' chances for obesity, coronary artery disease, hypertension, select cancers, and other chronic illnesses.

Almost 30% of students surveyed thought of themselves as overweight. Females (43%) were more than twice as likely to think of themselves as overweight as males (18%). Just over 38% of all students indicated they were trying to lose weight (females, 60%; males, 18%). Figure 28 illustrates, by gender and grade level, how students felt about their body weight.

Students were asked about their diet and eating habits during the previous day. Over 52% indicated that they consumed french fries or potato chips, and 46% indicated they had eaten cookies, cake or pie on the previous day. Over half the students indicated they had not eaten any vegetables, cooked or raw, during the previous day. Figure 29 details the diet questions by gender.

Fewer than 50% of all students indicated they attended a physical education class at least once per week. This percentage declined with grade level. At all grade levels, males were more likely to attend physical education classes than were females. Figures 30 and 31 illustrate student participation in physical education classes by grade level and types of exercise performed in the past seven days.

FIGURE 28
Perceived Body Weight

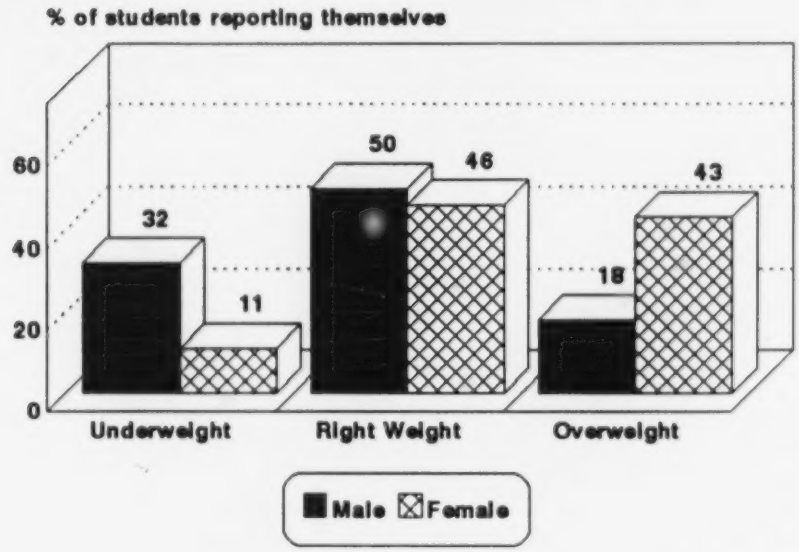


FIGURE 29
Poor Nutrition in the Daily Diet

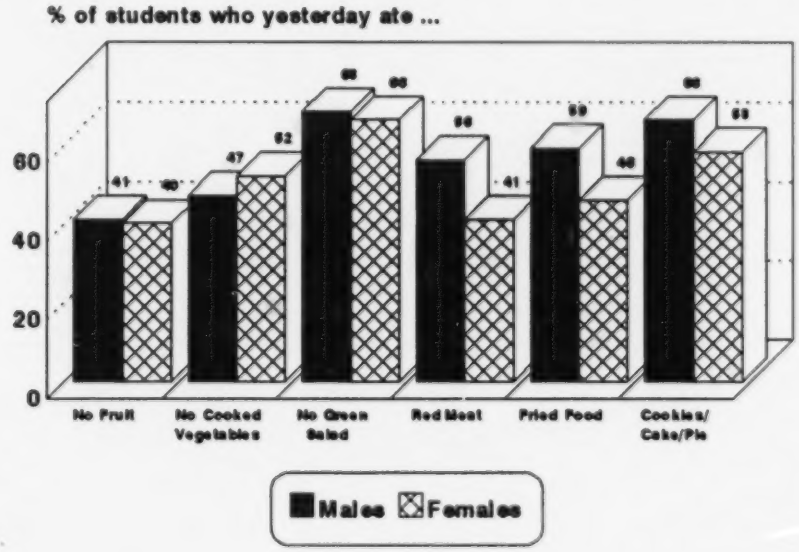


FIGURE 30
Exercise in School by Grade

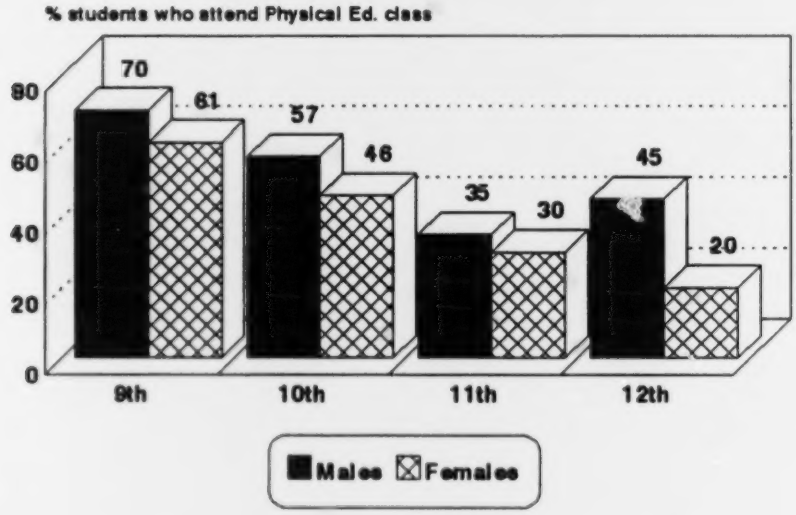
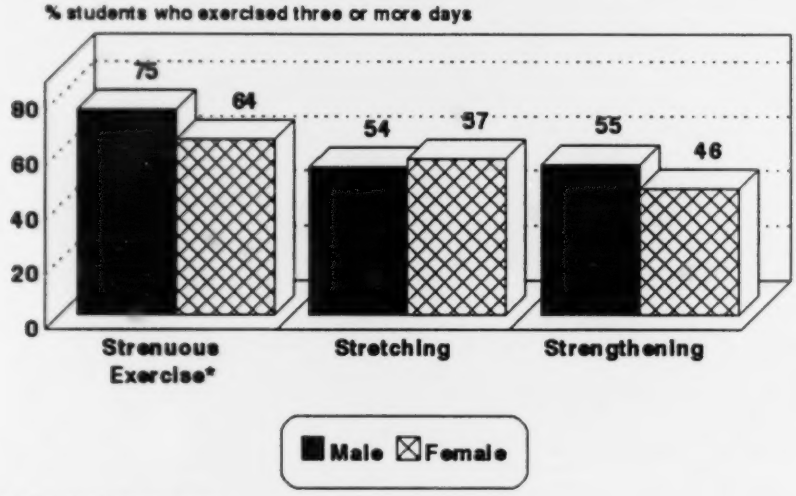


FIGURE 31
Exercise in the Past Seven Days



* activities that make you sweat or breath hard

CONCLUSIONS

Results from the Colorado YRBS indicate that Colorado 9-12 graders continue to engage in health-compromising behaviors at alarming rates. Of particular note are 1991 YRBS findings that among surveyed students:

- Over half are sexually active. Furthermore, over half of those sexually active did not use condoms during last sexual intercourse.
- From one-quarter to one-third of sexually active students used alcohol or drugs before last sexual intercourse.
- Ten percent of high school seniors had been pregnant or had caused a pregnancy.
- Over 25% of students rarely or never use seat belts.
- Nearly half of the males surveyed indicated that they had carried a weapon within the past 30 days.
- Over one-third had been involved in a physical fight.
- Nearly one-third had seriously considered suicide; 19% made a suicide plan, and 8% attempted suicide. Females are at higher risk than males in all three categories.
- Eighty-five percent had used alcohol some time in their lives, with half indicating use within the past 30 days.
- Seventy percent indicated they had smoked cigarettes, with over one-quarter having smoked within the past 30 days.
- One-third reported having tried marijuana; 19% indicated they had ever used LSD, PCP and/or speed at some time in their lives.

The need for comprehensive health education programs is greater than ever. Evidence continues to emerge that school-based health education programs can impact student behavior related to smoking, alcohol, drug use, and sexual activity. The 1991 YRBS data provide compelling evidence that such programs are essential to prevent health-risk behaviors, and in turn, to improve the health and well being of Colorado teens.